

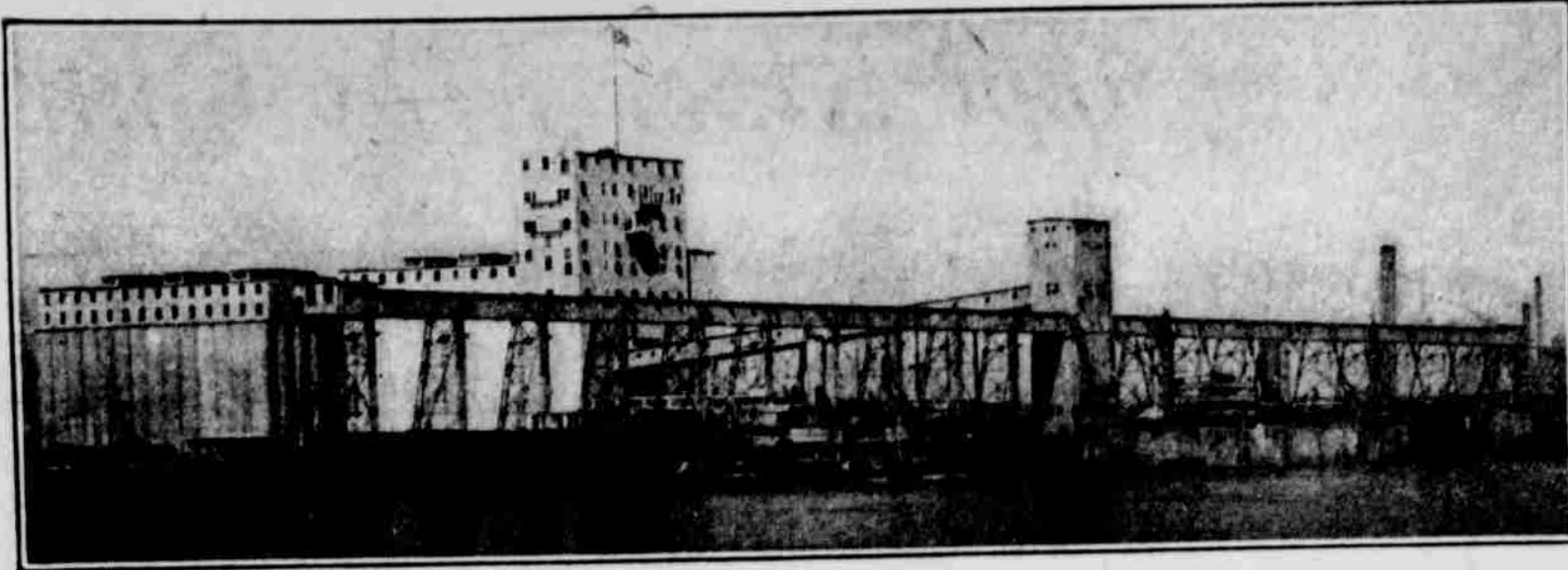
a source of misplaced rejoicing to New Orleans, because, through this seeming relief, no damage has been done to levees or property there by the flood waters, but it predicates the much more serious question of a change of 100 miles in the course of the Mississippi River, leaving a city of 400,000 inhabitants 'high and dry' on a shallow lake, which was once the bed of the lower Mississippi.

"Owing to lack of attention, the outlet into the Red River has enlarged both this stream and the Atchafalaya River until each is nearly three times its size of 10 years ago, while the cross-section area of the Mississippi River below this outlet has been reduced nearly two-thirds or from 95,944 sq. ft. in 1911 to 27,955 sq. ft. last year. These are the carefully checked figures of engineers at this point on the Mississippi, and show a tremendous reduction in the water flowing through the Mississippi southward in the past eight or ten years.

"The chart compiled by several engineers working on the Red and Atchafalaya rivers this year shows a loss of 68,000 sq. ft. in the low-water area, and of 38,000 sq. ft. in the high-water area in the Mississippi River, while the whole area (cross-sections, of course) of the Red River, in 1911, did not exceed 27,000 sq. ft.—approximately the present low-water, cross-section area of the Mississippi River.

"There is also an appreciable loss in the force of current in the Mississippi River below the mouth of the Red River. I have just returned from a trip in my steamboat into these waters, and the current below the outlet, I estimate, is about one-half the strength it was ten years ago. I have been operating steamboats through this current every month of the year for the past 45 to 50 years.

"At low water, within the past five years, there has appeared a dry sand bar in the middle of the Mississippi River about a mile below the mouth of this Red River outlet. This year, in high water, the deepest channel we could find across this bar was nine feet; in the same month, in 1911, there were 55 feet of water at the same place. This shows clearly the filling up of the channel at the rate of about five feet a year. This is the shallowest spot in the channel south of Vicks-



The \$15,000,000 municipally-owned and operated grain elevator on the Mississippi River at New Orleans, whose utility would end once the river changed its course.

burg, and this year was barely deep enough to let us through with the 'America,' and our barges.

"All these factors lead me to the conclusion—and I may say that every other river captain and engineer with whom I have talked is of the same opinion—that if the Mississippi River continues to silt up below the mouth of the Red River as it has in the past, and the mouth of the Red River is allowed to continue cutting out, New Orleans' future will be that of a 'port' without water connection with the other towns of the Mississippi Valley, and without deep-water connection with the Gulf of Mexico.

"The Mississippi River below Old (Red) River will become just a large, shallow lake, and a new city will rise on the banks of the Atchafalaya River, 100 miles west of the present city of New Orleans. That is to say, the mouth of the Mississippi will be at Morgan City, Louisiana, instead of at Port Eads, as at present.

"The remedy, in my opinion, is to close the mouth of the Red River, and to separate permanently and completely the Red and the Atchafalaya rivers from the

Mississippi River. To do this, however, it must first be understood that the Red and Atchafalaya rivers, and the Bayou Terrebonne were once mouths of the Mississippi River, and that the closing of these streams will force a tremendously greater volume of water than now through the levee-walls of the Mississippi, past New Orleans and on southward to the gulf. If these streams are divorced from the Mississippi, navigation can still be served from the Mississippi to the Red, Ouachita and Atchafalaya rivers and the Bayou Terrebonne through the Plaquemine Locks at Donaldsonville."

Though it is placed at 25 years from today, the possibility of being left high and dry by the largest river in North America has aroused much interest in New Orleans, and throughout Louisiana, and is believed to be unique in river antics. It is nothing new for a town, especially in the West, to be left to its own devices by some railroad, but for a river the size of the Mississippi to decide to return to the channels it abandoned before New World history began, without any consideration of the condition or sentiments of a city of 400,000, is, to say the least, unusual.

## Wrangel, Latest White Hope of Russia

RUSSIA'S latest Napoleon is in his thirties, has a passion for strong coffee, and consults a priest before he makes any definite move of policy.

Wrangel is his name and the same is his nature, for he comes of a fighting family. The Wrangels were a family of famous warriors who fought in the Thirty Years' War in the Swedish Army. After the death of Gustavus Adolphus on the battlefield of Lutzen a Wrangel was commander-in-chief of the army.

Wrangel fought under Charles X, in Poland, and with Charles XII, in Russia and Poland. When Peter the Great finally defeated Charles XII, some of the officers and men who were left were persuaded to join the Russian Army, those who refused being sent to Siberia.

The man whose authority has been recognized by France comes from these fighting Swedish Wrangels. He is an exceptionally young man for his responsibilities, but has a good record.

He set out to be a mining engineer but, in 1901, began his army career as a private in the Norse Guards regiment. Within one year he had won a lieutenantcy, and thereupon resigned until the Russo-Japanese war lured him back to the service. Here his bravery twice won him promotion. He was invited to attend the general staff academy, was graduated therefrom, and at the outbreak of the European war was a cavalry captain.

In the very first month of hostilities he so distinguished himself by capturing a German battery that he was decorated with the Cross of St. George, Russia's highest military decoration.

With the rank of colonel he was aide to the Czar, and then was given command of the Trans-Baikal Cossack regiment. His work in this command made him a major-general.

Then came the Revolution.

There is a pretty story about his arrest by the Bolsheviks, and his release through the tears and petitions of his devoted wife. It may be true. But if the Bolsheviks did release him, they made a mistake.

Being an active, forceful man, and young enough still to be daring, he speedily became a factor in the military situation, even as a subordinate; it became recognized that Wrangel's Cossacks were the backbone of the anti-Bolshevik resistance; they were picked troops, completely anti-Bolshevik, sternly disciplined, and led by a young man who was never backward in conducting a foray when the regimental larder looked thin.

Wrangel freed the Kuban, then the North Caucasus and the Telek state, becoming commander of the Caucasian Army with the rank of lieutenant general.

At this point conversationalists, bane of Russia, stepped in and began to whisper to Denikin that this young Wrangel was getting altogether too important. As a result, and purely through misunderstanding, Wrangel was forced to retire to the Crimea. From there he was summoned, when Denikin's fortunes waned, and it was remembered with what splendid unanimity the men had followed Wrangel.

With the realization that Denikin was too old to handle the situation, that officer retired himself and Wrangel succeeded him.

Within five days Wrangel had fired 294 staff organizations and committees, sending their members to the front. Two officers were executed, "to encourage the others."

Then he went through the ranks with a fine-tooth comb, and every weakling and malcontent was winnowed out and sent where they could do no harm. The balance formed the army, a fight-to-the-last sort of army, such an army as stricken Russia hadn't seen for many a weary day. He was harried a bit by

Bolshevik troops, but his army kept itself intact, raiding here and there when supplies were wanted, and always keeping itself in good fighting trim.

He has never suffered a real defeat, and has performed many unusual military feats, not the least being his single-handed defense of Tsarsin against Trotsky.

While Wrangel is gratified at the French recognition, he declares no Allied troops are wanted in Russia. That, he says, would be repeating the mistake of the Bolsheviks, who injured their cause irreparably with the Russians by employing Chinese mercenaries.

Now the tribes of Southern Russia, Dons, Kubans, Tereks and Astrakhans have signed a treaty of recognition, acknowledging Wrangel as the head of the Russian Government with full military and diplomatic powers. The Don Cossacks reserve the control of their internal affairs. But, when need comes, they will fight with Wrangel. And they are good fighters.

He is a young, dashing sort of a man, with the prestige of victory as his banner.

Is he Russia's Napoleon after the terror?



GENERAL WRANGEL

## Will Irrigate African Desert

ONE of the greatest reclamation projects the world has ever seen is planned for the heart of Africa.

It is nothing less than the irrigation of a desert. The author of the plan, now before the African governing authorities, is Professor E. H. L. Schwarz, and his design is to reclaim vast areas of the Kalahari Desert. Streams draining this arid region are to be dammed and a large shallow lake created, irrigating 10,000 miles of potentially productive territory between the Zambezi and Orange rivers, considered to be among the most promising land in the whole of Southern Africa.

Professor Schwarz is in Europe answering the critics of the project, the chief objection being that the evaporation from the large surface of the proposed storage lake would be so great that it would absorb a very large proportion of the water. Even the critics, however, admit the urgent necessity of arresting the process of desiccation which is steadily increasing over the whole region between the uplands of South and West Africa protectorate on the west to the Transvaal and Southern Rhodesia on the east.

The Kalahari Desert covers fully 120,000 square miles and is part of the immense inner tableland of South Africa, with an average elevation of 3,000 feet. It has been called "the Southern Sahara" and like the great desert of the north is arid and scarred by the beds of dried-up rivers.

The soil, however, is different from that of the Sahara. Red sand is on the surface, but occasionally limestone overlies shale and conglomerates. The Kalahari has been likened to an ocean, the ground being undulating, like the ocean at times of heavy swell. The crests of the waves are represented by sand dunes, rising from 30 to 100 feet. There are also mud flats, which form small brackish lakes after heavy rain. A tough, sun-bleached grass, growing knee high in tufts at intervals of 15 inches, covers the dunes.

Next to the lack of water the desert's chief characteristics are the tuberous and herbaceous plants and the large numbers of big game. Of the plants water-melons, bitter and sweet, supply water for man and beast; while the game includes elephant, giraffe, eland, lion, leopard, hippopotamus, rhinoceros, buffalo, zebra, quagga, kudu, gnu and other kinds of antelope, baboon and ostrich.

The Kalahari is the home of wandering Bushmen who live off the game, killing their prey with poisoned arrows. Along the western border dwell Hottentots, who are cattle raisers. The great bulk of the desert's inhabitants, however, are the Ba-Kalahari, the oldest of the Bechuana tribes; these are natural agriculturists, who cultivate carefully the meager produce of their difficult gardens, and rear small herds of goats. They have been described as grave and morose.

One curious thing may be related as pointing the need and importance of the work Professor Schwarz plans. Where there is no running stream or open well, and the natives desire water they tie a long bunch of grass to a reed about two feet long, and insert the end of the reed, with the grass, in a hole dug at a spot where water is known to exist underground, the damp sand being rammed down firmly around it. An ostrich eggshell, the usual water vessel, is placed on the ground alongside. Then the water-drawer, usually a woman, sucks up the water through the reed, cleverly squirting it into the adjacent eggshell, through another reed or a straw, one end of which is in her mouth, and the other in the shell.

Professor Schwarz believes the time is not far distant when the whole of the Dark Continent will be brought measurably within the control of civilization, and urges the Kalahari project as a test of modern scientific methods applied to the rebellious unproductive portions of the earth's surface.